

COMPUTER-AIDED NUCLEIC ACID SEQUENCING

ABSTRACT OF THE DISCLOSURE

A computer system for sequencing nucleic acids is
5 provided. The computer system may be used for de novo
sequencing of a nucleic acid sequence by analyzing the
fluorescence intensities of hybridized nucleic acid probes on
biological chips. The probes with the highest intensities are
utilized to sequence the nucleic acid and related probes are
10 analyzed to increase the accuracy of nucleic acid sequencing.
The sequence of the nucleic acid sequence may be determined
from hybridization intensities that do not allow
identification of perfectly complementary probes.